

Release Authority

LCDR Dawn Stankus



PAO@cvn76.navy.mil

619-545-4205

USS Ronald Reagan's Steam Snipes

By Mass Communication Specialist 2nd Class Cameron C. Edy

The Navy's only forward-deployed aircraft carrier USS Ronald Reagan (CVN 76) sails on steam. Everything from showers and warm food to propulsion and electricity, comes from the ship's ability to create and manage steam. Steam's most important mission, however, is the launch and recovery of aircraft. That steam – that puts birds in the sky – is meticulously managed by the “steam snipes,” engineers who own, operate and maintain Reagan's steam catapult systems.

Reagan's reactor department creates the steam that powers the catapults actuation, and air department actuates the system, but the steam snipes are the bridge between the two systems, ensuring that steam is on-station and on-demand. Machinist's Mate 1st Class Camden J. Reid, the leading petty officer of Reagan's steam catapult shop, explained his work center's purpose onboard.

“Reactor makes the steam, but they don't control what happens outside the plant,” said Reid. “Air department launches the aircraft and presses the ‘go’ button, but without us, that go button doesn't work. No matter how much steam they make, or how many times they press the go button, if we're not here every day, doing what we do best, the system doesn't work.”

Reid went on to explain the ways his work center ensures that system stays functional at all times.

“We don't let the system break or fail when it needs to work,” said Reid. “When things go down, my guys have the system back up and running almost immediately. It's one of the gifts and curses of

being a steam catapult snipe; people forget we exist because our equipment always works. If it doesn't work, we have to troubleshoot that immediately."

Dealing with a critical system every day can be difficult work. Machinist's Mate 3rd Class Brayden M. Reeves emphasized the level of knowledge each steam catapult engineer needs to operate such a complicated system.

"Only aircraft carriers have this specific shop," said Reeves. "It's something that many in engineering are almost scared to learn about, because it's so complex. It's a vigorous learning process. We have to be able to report the numbers and procedures at every step. Our leading petty officer has to be confident that if there's a casualty. We already know what to do; and that's all before we're allowed to work on the system. There's no room for error. The moment someone orders a plane launched and it doesn't go anywhere, the phones start ringing."

While launching aircraft is the first mission of steam snipes, they also ensure proper shutdown and restart of the steam catapults for maintenance. This usually occurs during tight windows between launches and recoveries. These deadlines for shutting down and bringing up a system are integral to Reagan's flight schedule.

"Air department will call and ask for the system to be put in maintenance lay-up (MLU)," said Reeves. "Right out the door we go, turning valves, depressurizing, and we've got a thirty-minute window before we bring it back up again. If I mess up and over pressurize or don't open the fill-valves correctly; one, my accumulator is going to be messed up and two, my catapult won't pressurize, and the flight schedule ends up delayed. It turns things like maintenance breaks into intense no-fail scenarios where the entire team comes together for success."

The engineers directly manage the flow of steam, and when a steam generator is taken offline, or a catapult is no-longer able to launch, they are responsible for redirecting that flow into a path that allows the mission to continue.

“If one of the generators has a casualty, the catapult relying on that generator isn’t taken offline,” said Reid. “We redirect steam from other generators to ensure that catapult can still fire. It’s not a push-button system. We have to change alignments, and it’s not just opening or shutting valves - this is steam, something that can kill if a pipe has a pinhole leak. A lot goes into realigning a system, but it has to happen to keep the mission on-track.”

Reid went on to explain how dangerous working with steam can be, and the steps his work center takes to ensure the danger is mitigated and managed for everyone onboard.

“You never want what we call a ‘steam hammer’ or a ‘water hammer,’” said Reid. “As metal heats up, it expands. If we take a cold pipe, and rapidly charge it, it can rupture. That means we can never take our job lightly. If we cause a rupture, it can damage equipment, but more importantly, it can hurt personnel working on the equipment. There’s no room for error; if we damage equipment, someone or something is going to be messed up.”

These snipes are proud of their work, a point that Reeves made perfectly clear.

“Machinist’s Mates are all one-and-the-same,” said Reeves. “But a steam snipe is one-of-a-kind.”

Ronald Reagan, the flagship of Carrier Strike Group 5, provides a combat-ready force that protects and defends the collective maritime interests of its allies and partners in the Indo-Pacific region.

###